

# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

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August 17, 2007

TO: Internal File

THRU: Pamela Grubaugh-Littig, Permit Supervisor *pgc*  
Wayne Western, Team Lead *WHW*

FROM: *DD* Dana Dean, P.E.; Senior Reclamation Hydrologist

RE: North Lease Incidental Boundary Change, Canyon Fuel Company, Skyline Mine, C/007/0005, Task #2813

## SUMMARY:

Canyon Fuel Company (CFC, the Permittee) submitted an amendment to add 680 acres to the Skyline Mine permit through an Incidental Boundary Change on June 27, 2007. CFC will lease the coal in the additional acreage from Energy Fuels Corporation and C&B Coal. The land is privately-owned. CFC will conduct development mining in the IBC area (no second mining, no planned subsidence), and they will not cause any additional surface disturbance.

This technical memorandum discusses the hydrology related issues pertaining to the application.

The application does not meet the requirements of the relevant regulations. The Division should not approve it until all deficiencies have been addressed.

This amendment will not require any changes to the hydrology sections of the Master TA, nor to the CHIA.

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**TECHNICAL ANALYSIS:**

**ENVIRONMENTAL RESOURCE INFORMATION**

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

**MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION**

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

**Analysis:**

**Surface and Subsurface Ownership Maps**

The Permittee has not met the requirements of **R645-301-521.131**. Drawing 1.6-1 does seem to show the correct surface ownership, as described in the text. However, the coal ownership shown on Drawing 1.6-2 for the S¼ of Section 36, T12S.R6E, the W½ of Section 1, T13S.R6E, and the NW¼NW ¼ of Section 12, T13S.R6E, SLB&M conflicts with parts of the text, and Drawing 1.6-3. In some instances, CFC lists the owner of the coal as Carbon County, and in others as Energy Fuels. The Permittee must clarify the coal ownership in each place it is mentioned. If Carbon County is the owner of the coal, and Energy Fuels has a lease on the coal that has subsequently transferred to CFC, that should be clear.

**Certification Requirements**

The Permittee has not met the requirements of **R645-301-512.140**, in reference to the certification of required hydrologic resource maps as follows:

- Drawing 2.3.4-2, Potentiometric Surface Map 11/06 (required by R645-301-722.100), must be certified by a qualified, registered, professional engineer or geologist.
- Drawing 2.3.5-1-1, Surface Water Rights on and Adjacent to the Skyline Property (required by R645-301-722.200 and R645-301-731.710), must be certified by a qualified, registered, professional engineer, geologist or surveyor.
- Drawing 2.3.5.2-1, Ground Water Rights on and Adjacent to the Skyline Property (required by R645-301-722.400), must be certified by a qualified, registered, professional engineer, geologist, or surveyor.

**Findings:**

The Permittee has not complied with the Maps, Plans and Cross Sections of Resource Information requirements of the Regulations. They must adequately respond to the deficiencies listed above.

## **OPERATION PLAN**

### **HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

#### **Analysis:**

##### **General**

The Permittee has met the requirements of R645-301-731. They will limit operations to development mining in the IBC area, and do not plan any subsidence. They will not disturb any surface in the IBC area. Damage to the hydrologic balance will thus be minimized within the permit area, and prevented outside the permit area.

##### **Groundwater Monitoring**

The Permittee has met the requirements of R645-301-731.210. The Permittee has established an additional spring monitoring site (WQ1-1) just outside the permit area near the IBC. A spring and seep survey conducted in 2006 identified this particular spring, which issues from the Blackhawk Formation.

##### **Surface Water Monitoring**

The Permittee has met the requirements of R645-301-731.220. Water monitoring is already established in Winter Quarters Canyon, the Permittee plans no surface disturbance in the IBC area, and they will limit operations to development mining in the IBC. Thus, no additional disturbance to water resources is planned, and monitoring is already in place.

#### **Findings:**

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The Permittee has met the Hydrologic Operation Plan Information requirements of the regulations.

## **MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS**

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

### **Analysis:**

#### **Monitoring and Sampling Location Maps**

The Permittee has met the requirements of R645-301-731.730. The Permittee has updated Drawings 2.3.6-1 and 2.3.6-2 to include the IBC in the permit area. They have also added WQ1-1 to Drawing 2.3.6-1.

#### **Certification Requirements**

The Permittee has not met the requirements of **R645-301-512.140**, in reference to the certification of required hydrologic resource maps as follows:

- Drawings 2.3.6-1, Location of Hydrologic Monitoring Stations, and 2.3.6-2, North Lease Subsidence Monitoring Points, required by R645-301-731.730 and R645-301-722.300 must be certified by a qualified, registered, professional engineer, geologist, or surveyor.

### **Findings:**

The Permittee has not complied with the Maps, Plans and Cross Sections of Mining Operations requirements of the Regulations. They must adequately respond to the deficiencies listed above.

## **RECLAMATION PLAN**

## **HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

**Analysis:**

**Hydrologic Reclamation Plan**

The Permittee will not disturb any surface in the IBC area. Therefore, they will not install any hydrologic structures there, and the R645 Rules regarding hydrologic reclamation do not apply.

**Findings:**

The Permittee has met the Hydrologic Reclamation Plan Information requirements of the regulations.

## **CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT**

Regulatory Reference: 30 CFR Sec. 784.14; R645-301-730.

**Analysis:**

The Division completed a Cumulative Hydrologic Impact Assessment in February, 2006. It already includes the IBC area, and does not need to be updated in light of the IBC.

**Findings:**

The current CHIA is sufficient to meet the requirements of the R645 Rules.

**RECOMMENDATIONS:**

The application does not meet the requirements of the relevant regulations. The Division should not approve it until all deficiencies have been addressed.